

**Notice of Allowability**

Application No.

10/801,301

Examiner

TAN Q. NGUYEN

Applicant(s)

MCBRIEN ET AL.

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/16/2005.
2. ☒ The allowed claim(s) is/are 28 (now renumbered as 1).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 06/23/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**TAN Q. NGUYEN**  
**PRIMARY EXAMINER**

### **EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE**

1. This communication is an Examiner's reasons for allowance in response to application filed on March 16, 2005, assigned serial 10/801,301 and titled "VIBRATION MONITORING SYSTEM FOR GAS TURBINE ENGINE".
2. The following is the Examiner's statement of reasons for the indication of allowable subject matter:
  - a. After carefully reviewing the application in light of the prior art of record, the preliminary amendment with a newly added claim 28 and additional search of all the possible areas relevant to the present application, a set of related prior art references has been found, but those prior art references are not deemed strong to make the application unpatentable. Thus, it is found that the application is now in condition for allowance.
  - b. Although the prior art disclose several claimed limitations, none of the references teaches a method for monitoring bearing vibration levels associated with a rotating component and establishing an alarm setting which includes at least the steps of measuring an operating parameter and a corresponding set of vibration amplitudes for a rotating component during a period of operation, wherein the rotating component including a plurality of bearings and at least one sensor for measuring vibration amplitudes, selecting a bearing to be monitored, selecting the vibration sensor to be used, demodulate the set of measured vibration amplitudes, convert the demodulated set of measured vibration amplitudes into spectra data, compare the spectra data to predetermined tonal frequencies for the bearing so as to define a set of normalized amplitude data points, and trend the normalized amplitude data points over the period of

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operation so as to establish a time period remaining to reach an established amplitude limit (claim 28).

c. Claim 28 is allowable over the prior art of record (now renumbered as 1).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Tan Nguyen, whose telephone number is (571) 272-6966. The examiner can normally be reached on Monday-Thursday from 5:30 AM-4:00 PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (571) 272-6956.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to the Central Fax: (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/tqn  
September 30, 2005

  
**TAN Q. NGUYEN**  
Primary Examiner  
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